Data Analysis and Probability
Lesson 32 Worksheet
Math for Standards

Name _____

Date _____

For each question, you need to find the answer and show your work. Each problem is worth 3 points: one for the correct answer and two for showing your work. For some problems, you may just need to write out how you know you have the correct answer.

Use this information for questions 1-5. A large food manufacturer held a number of focus group meetings in which it asked consumers to decide how they felt about new products. For one product, a snack chip made from spinach, the results were as follows:

Response	Loved it	Pretty good	Barely okay	Hated it
Number	26	42	81	51

What is the probability that a randomly selected person from the focus group:

1. Loved it?

2. Hated it?

3. Didn't hate it?

4. Neither loved nor hated it?

5. The company plans to test market the spinach chip in a town with approximately 24,000 people over age 12. Out of that population, about how many can reasonably be expected to love spinach chips?

Use this information for questions 6 and 7. In a random poll taken the night before an election, the candidates received the following support:

Candidate	Matt Mitarnowski	Fuzzy Jeff	Shecky	Maggie Brann
Will vote for	235	385	205	220

6. Approximately what percent of the votes can Maggie expect to get?

7. The city has 220,000 registered voters. About how many votes can Jeff expect based on the sample?

Use this information for questions 8 and 9. The table below shows data about the number of pounds a dieter lost during the first several weeks of following a weight-loss program.

Weeks on diet	1	2	3	4
Total weight loss	2 lb	3.5 lb	5 lb	6.5 lb

8. Find an equation to model the data in the table.

9. The dieter plans to maintain his weight after losing at least 18.5 pounds. If the pattern continues, how many weeks in all will he have been on the diet when he reaches his goal?

Open-Ended Question: Write your answer on separate sheet of paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!

Matt Mitarnowski took 40 penalty kicks at soccer practice. He scored on 27 of the kicks. He missed the goal completely 4 times. The goalie stopped the other 9 attempts.

A. Write a ratio to represent the probability of each of the three outcomes.

B. Use the ratios from part A to determine the percentage of shots Matt should expect to make, to miss, and to have stopped by the goalie.

C. What is the likelihood that Matt makes two straight shots?

D. How could this data be misleading? Consider all factors that can be taken into account during both a soccer practice and a soccer game.